zenith

SERVICE MANUAL

Product Type:	LCD TV
Chassis:	MF-002A
Manual Series:	CM154
Manual Part #:	923-03488
Model Line:	E
Product Year:	2002

Model Series:

L20V26

CONTENTS

Safety 2
Overview 5
Servicing 12
Parts 13
Diagrams 19
Schematic 25

Published June 2002
by Technical Publications
Zenith Electronics Corporation
201 James Record Road
Huntsville, Alabama 35824-1513

Printed in U.S.A.

Copyright © 2002 by Zenith Electronics Corporation

PRODUCT SAFETY

IMPORTANT SAFETY NOTICE

This manual was prepared for use only by properly trained audio-visual service technicians. When servicing this product, under no circumstances should the original design be modified or altered without permission from Zenith Electronics Corporation. All components should be replaced only with types identical to those in the original circuit and their physical location, wiring, and lead dress must conform to original layout upon completion of repairs. If any fuse (or Fusible Resistor) in this TV receiver is blown, replace it only with the factory specified fuse type and rating. When replacing a high wattage resistor (Oxide Metal Film Resistor, over 1W), keep the resistor 10mm away from PCB. Always keep wires away from high voltage or high temperature parts.

Special components are also used to prevent shock and fire hazard. These components are indicated by the letter "x" included in their component designators and are required to maintain safe performance. No deviations are allowed without prior approval by Zenith Electronics Corporation. Service work should be performed only after you are thoroughly familiar with these safety checks and servicing guidelines.

Circuit diagrams may occasionally differ from the actual circuit used. This way, implementation of the latest safety and performance improvement changes into the set is not delayed until the new service literature is printed.

CAUTION: Do not attempt to modify this product in any way. Never perform customized installations without manufacturer's approval. Unauthorized modifications will not only void the warranty, but may lead to property damage or user injury.

GENERAL GUIDANCE

An lsolation Transformer should always be used during the servicing of a receiver whose chassis is not isolated from the AC power line. Use a transformer of adequate power rating to protect against personal injury from electrical shocks. It will also protect the receiver and its components from being damaged by accidental shorts of the circuitry that may be inadvertently introduced during the service operation.

Before returning the receiver to the customer, always perform an AC leakage current check on the exposed metallic parts of the cabinet, such as antennas, terminals, etc., to be sure the set is safe to operate without damage of electrical shock.

LEAKAGE CURRENT COLD CHECK (ANTENNA COLD CHECK)

With the instrument AC plug removed from AC source, connect an electrical jumper across the two AC plug prongs. Place the AC switch in the on position, connect one lead of ohm-meter to the AC plug prongs tied together and touch other ohm-meter lead in turn to each exposed metallic parts such as antenna terminals, phone jacks, etc. If the exposed metallic part has a return path to the chassis, the measured resistance should be between 1MΩ and 5.2MΩ. When the exposed metal has no return path to the chassis the reading must be infinite. Any other abnormality that exists must be corrected before the receiver is returned to the customer.

ELECTROSTATICALLY SENSITIVE DEVICES

Some semiconductor (solid-state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on the body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.

2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as an ESD mat, to prevent electrostatic charge buildup or exposure of the assembly.

3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.

4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.

5. Do not use freon-propelled chemicals. These can generate electrical charge sufficient to damage ES devices.

6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil, or comparable conductive material.)

7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

Caution: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise, seemingly harmless motion, such as the brushing together of your clothing or the lifting of your foot from a carpeted floor, can generate static electricity sufficient to damage an ES device.)

REGULATORY INFORMATION

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient or relocate the receiving antenna; Increase the separation between the equipment and receiver; Connect the equipment into an outlet on a circuit different from that to which the receiver is connected; Consult the dealer or an experienced radio/TV technician for help.

The responsible party for this device's compliance is:

Zenith Electronics Corporation
201 James Record Road
Huntsville, AL 35824, USA
Digital TV Hotline: 1-800-243-0000

TABLE OF CONTENTS

PRODUCT SAFETY 2
TABLE OF CONTENTS 3
OVERVIEW 5
- WARRANTY/SERVICE 5
- FEATURES 5
- SPECIFICATIONS 5
- REMOTE CONTROL 6
- FRONT 7
- BACK 7

USER MENUS 8
- MENU LANGUAGE 8
- CLOSED CAPTIONING 8
- PARENTAL CONTROL 9
- CHANNEL SEARCH 9
- SLEEP TIMER 10
- AUDIO SETUP 10
- VIDEO 11

SERVICING 12
- ADJUSTMENTS 12

PARTS 13
- MODEL PARTS 13
- COMPONENT PARTS 13

DIAGRAMS 19
- EXPLODED VIEW 19
- BLOCK DIAGRAM 20
- MAIN PCB LAYOUT 21
- MX PCB LAYOUT 22
- TUNER PCB LAYOUT 23
- CONTROL PANEL PCB LAYOUT 23

MAIN L20V26 CIRCUIT 25

GENERAL INFO

WARRANTY/SERVICE

This model is a Factory Service Repair model (in and out of warranty) and is covered by a one year limited warranty. For service, the end user should call 1-800-984-9349 for complete shipping and handling instructions (or call 1-877-9ZENITH). Refer to the last page of the opguide for more information.

FEATURES

20.1" EDTV MONITOR
Truly Flat LCD screen delivers razor sharp images.

BUILT IN NTSC TUNER
Accepts cable/antenna, HDTV, satellite dish, and NTSC video sources

640 X 480 RESOLUTION
High resolution format produces extremely detailed imagery

400:1 HIGH CONTRAST RATIO
LCD technology emits sharp contrast between light and dark images

450 CD/M2 HIGH BRIGHTNESS
Renders an incredibly bright picture, even in light-drenched environments

140 X 120 DEGREES VIEWING ANGLE
Allows for distortion-free viewing from almost any angle

HI-RES COMPONENT, S-VIDEO, RF, AV INPUTS
Multiple inputs for DVD players, VCRs, computers, and video game systems

INNOVATIVE DESIGN
Lightweight and compact frame includes built in speakers

4H DIGITAL COMB FILTER
Accurately separates color data (chroma, or C) from black and white data (lumina, or Y) to produce improved color images and picture quality.

EDTV
Uses progressive scan technology to display noticeably higher quality images than the conventional "interlacing" method.

DIGITAL PROGRESSIVE SCAN
Lines of video data are processed faster and sequentially, a significant improvement on the old "interlacing" method. This allows the TV to display crisp, clear images when receiving data from a DVD player or other video sources requiring more bandwidth.

NTSC TUNER
Accepts standard United States broadcast video signals as designated by the National Television Standards Committee.

HI-RES COMPONENT VIDEO
Delivers the highest quality picture by breaking down video data into three separate signals—red, blue and luminance—before the data is sent to the television.

SPECIFICATIONS

VIDEO ENHANCEMENTS

Screen Size	20.1"
Flat	Yes
Resolution Display	640 x 480 (VGA)
Color Depth	16M (8-Bit)
Aspect Ratio	4:3
Contrast Ratio	400:1
Brightness	450 cd/m2
High Drive Video Watts	70W
Viewing Angle	140° x 120°
Tuning System	NTSC-M
Comb Filter	4H Digital
Digital Progressive Scan	Yes
Black level Exp./White Level Compression	Yes

AUDIO ENHANCEMENTS

On Screen Equalizer	Yes
Gradual Volume Increase	Yes
Mono/Stereo/MTS/SAP	Yes
Bass/Treble/Balance	Balance Only
Total Audio (Watts)	6W (2 x 3W)
Auto Volume Leveler	Yes

SPECIAL FEATURES

DRP (Digital Reality Processor)	Yes
CTI (Chrominance Transient Improvement)	Yes
LTI (Luminance Transient Improvement)	Yes
Tri-lingual Menus	English, Spanish, French
Auto Programming	Yes
Parental Control w/V-Chip	Yes
Auto Picture	Yes
Auto Sleep (Power/Off)	Yes
Flashback	Yes
CC	Yes
CC When Mute	Yes
Auto Power on and Last Source Memory	Yes

OVERVIEW

CABINET DESCRIPTION

Finish ..... Brushed Silver

Cabinet Style ..... New

REMOTE CONTROL

Transmitter ..... Yes

Model Number MF-002A

Transmitter Finish ..... Off-White

REQUIRED APPROVALS

UL, C-UL, NOM ..... UL, C-UL, FCC (B)

SERVICE/LIMITED WARRANTY

Warranty: Parts/Labor ..... 1 Year/1 Year

MTBF (Approx.) ..... 40K Hours

DIMENSIONS

Width x Height x Depth (Monitor)27.4" x 19" x 7.7"

Weight ..... 30.2 lbs

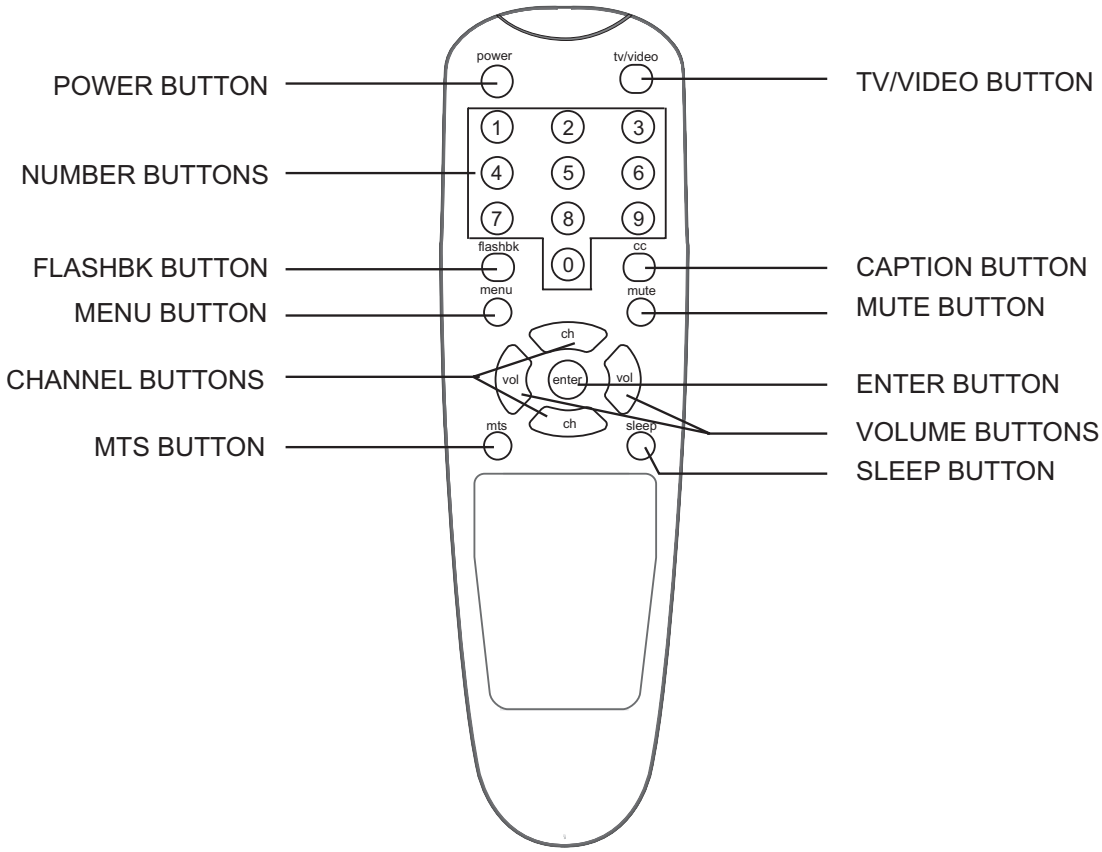
DIMENSIONS WITH PACKAGING

Width x Height x Depth ..... 22.8" x 24.8" x 11.9"

Weight ..... 36.4 lbs.

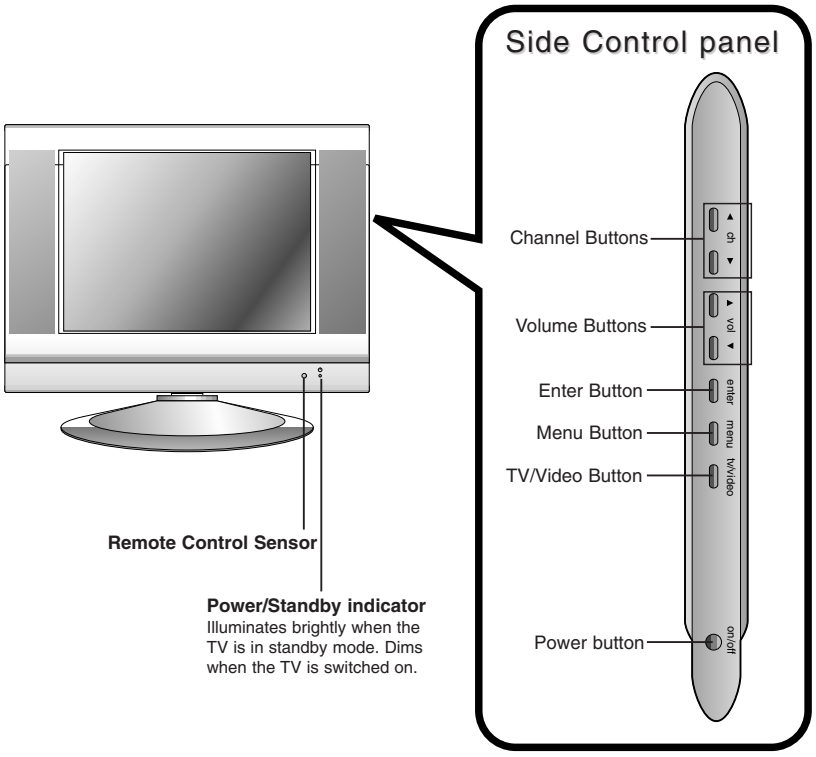
UPC Code 4464200402 6

REMOTE CONTROL

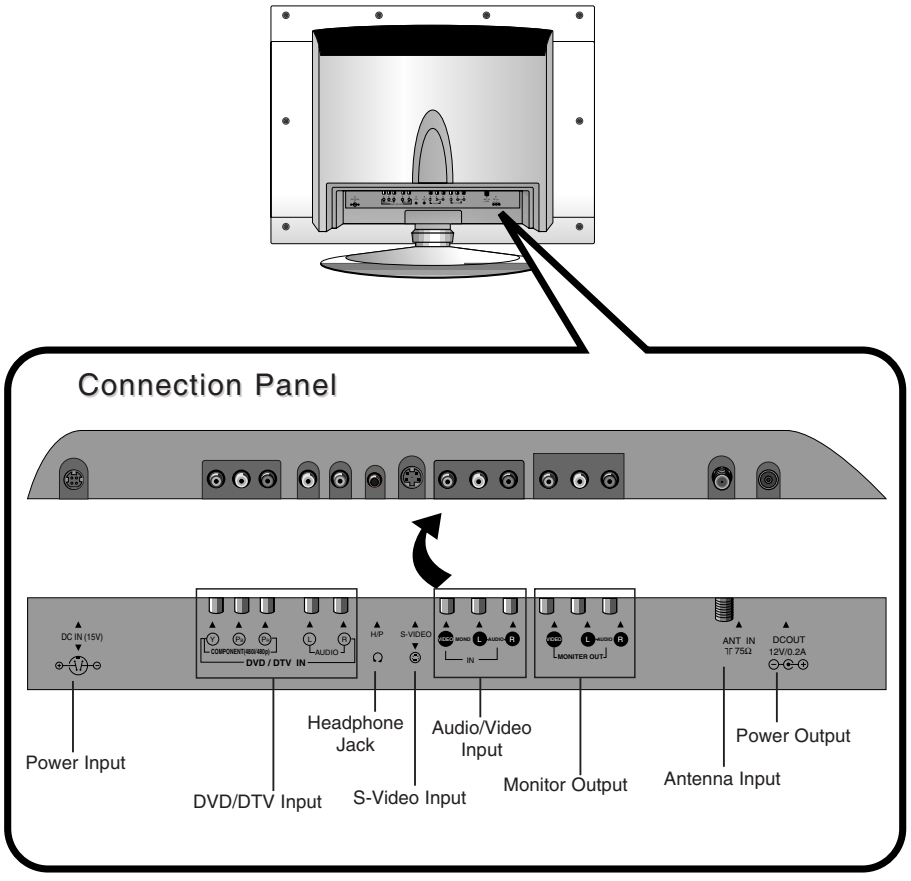


OVERVIEW

FRONT



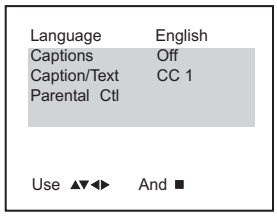
BACK



USER MENUS

Press the menu button to display the available menus. Use the channel up/down buttons to select a menu option.

MENU LANGUAGE



Use the channel up/down buttons to select the Language option. Use the volume up/down buttons to select the language. Each press of volume up/down buttons changes the menu language between English, Spanish, and French. Press the enter button to exit.

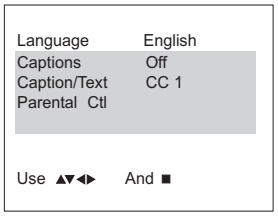
CLOSED CAPTIONING

OVERVIEW

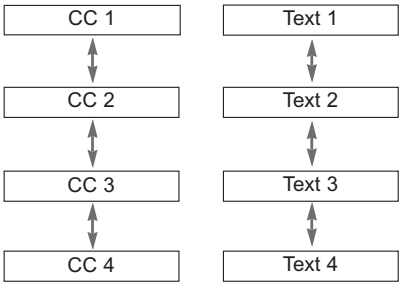
Closed captioning is a process which converts the audio portion of a television program into written words which then appear on the television screen in a form similar to subtitles. Closed captions allow viewers to read the dialogue and narration of television programs.

Not all TV broadcasts include closed caption signals. Sometimes TV stations broadcast four different caption signals on the same channel. By selecting From CC1 to CC4, you can choose which signal you view. CC1 is usually the signal with the captions, while Another mode might show demonstration or programming information.

CAPTIONS/TEXT SETUP

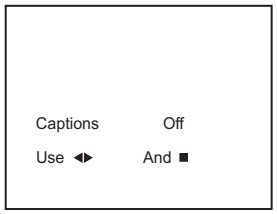


Use the menu button to select the menu shown. Use the channel up/down buttons to select the Caption/ Text option. Each time you press the volume up/down buttons, the caption mode is cycled to the next option.



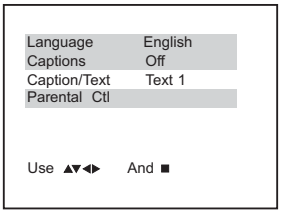
Press the enter button to accept and exit. This TV is programmed to remember the caption/text mode it was last set when you turn the POWER off.

EZ MUTE SETUP



Use the CC button to select Captions. Each press of volume up/down buttons changes the caption option between off, on, or EZ Mute. EZ Mute shows the selected captions option (if available on program) when the TV sound is muted.

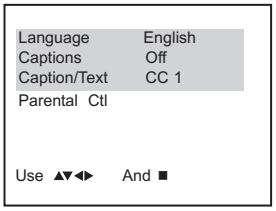
TEXT SETUP



Text services can give a wide variety of information like captioned program lists, weather forecasts, stock exchange topics, or news for hearing impaired. But not all stations offer text services, even though they might offer captioning.

In the event you are receiving a poor signal, an empty black box may appear and disappear, even when the text mode is selected.

PARENTAL CONTROL

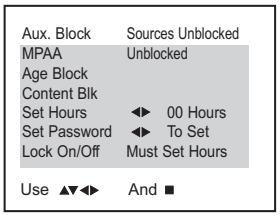


The Parental Control Function (V-Chip) is used to block program viewing based on the ratings sent by the broadcast station. The default setting is to allow all programs to be viewed. Viewing can be blocked by the type of program and by the categories chosen to be blocked. It is also possible to block all program viewing for a time period. To use the Parental Control Function, the following must be set.

1. Ratings and categories to be blocked.
2. Number of hours to lock the television viewing control
3. Set a password
4. Enable the lock

BLOCKING SETUP

Use the channel up/down buttons to select the Parental Ctl option. Press the volume down button. Age block and Content block options also have sub-menus to set the type of blocking and rating. Use the channel up/down buttons to select the types of blocking to be set. Use the volume up/down buttons to select the types of ratings to block. MPAA, Age, and/or Content block may be set.



Press the menu button to return from the Age Block or Content Blk options. Use the channel up/down buttons to select the Set Hours option. Use the volume up/down buttons to set the number of hours for the blocking (Up to 99).

Use the channel up/down buttons to select the Set Password option. Enter a four digit password. Enter it again when requested. A new password may be chosen each time blocking is set up. Press the channel up/down buttons to select the Lock on/off option. Press the volume up/down buttons to turn the lock On. Press the menu button to save the blocking setups and exit.

V-CHIP RATINGS

Most television programs and television movies can be blocked by TV Rating and/or Individual Categories. Movies that have been shown at the theaters or direct-to-video movies use the Movie Rating System(MPAA) only.

Movies Ratings:

* Unblocked
* G - General audience
* PG - Parental guidance suggested
* PG-13 - 13 years and older
* R - Restricted
* NC-17 - 17 years and older
* X - Adult

General TV Ratings:

* Unblocked
* TV-G - General audience
* TV-PG - Parental guidance suggested
* TV-14 - 14 years and older
* TV-MA - Mature audience

Children TV Ratings:

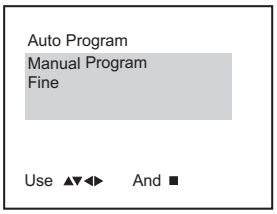
* Unblocked
* TV-Y - youth
* TV-Y7 - youth, 7 years and older

Content Categories:

* Dialog - sexual dialogue (applies to TV-PG, TV-14)
* Language - adult language (applies to TV-PG, TV-14, TV-MA)
* Sex scenes - sexual situations (applies to TV-PG, TV-14, TV-MA)
* Violence (applies to TV-PG, TV-14 and Above, TV-MA)
* F Violence - fantasy violence (applies only to TV-Y7)
* No Rating (blocks all viewing)

CHANNEL SEARCH

AUTO PROGRAM



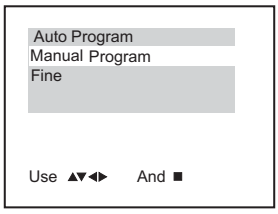
Auto programming memorizes all the channels from terrestrial TV signals or a cable TV service provider. If channels from TV and cable TV search are duplicated, press the number buttons (0 - 9) to change.

Press the volume up button to begin the channel search. Wait for auto program to complete the channel search cycle before choosing a channel. The TV scans for over-the-air channels and then channels provided by a cable service.

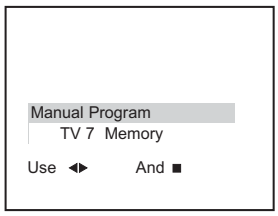
If you press the enter button during auto programming, the function will stop and only channels found up to that time will be added. When the channel search is complete, use the channel up/down buttons to review the memorized channels.

MANUAL PROGRAM

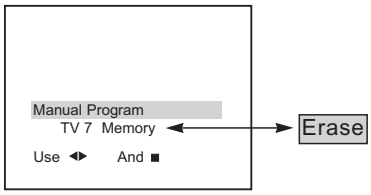
You can select Memory to add the channel or Erase to delete the channel from memory.



Use the menu button to select the menu shown and then use the channel up/down buttons to select the Manual Program option. Press the volume up/down buttons.



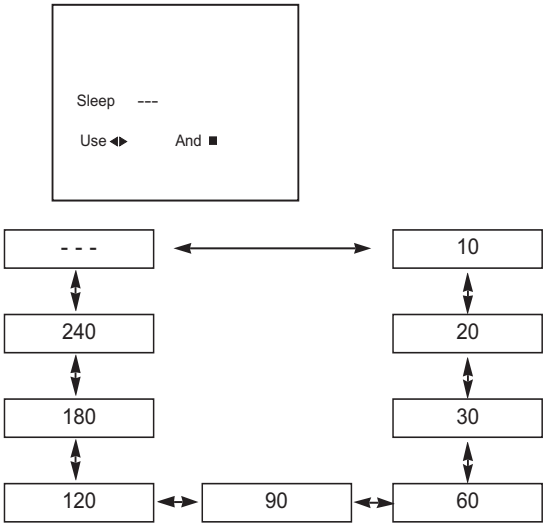
The current channel number is displayed. Use the channel up/down buttons to select a channel you want to add to memory or erase and then use the volume up/down buttons to select Memory (add) or Erase (delete). Each time you press the volume up/down buttons, you toggle between Memory and Erase.



Press the enter button to select and exit. The current channel is added to Memory or Erased from the channel list.

SLEEP TIMER

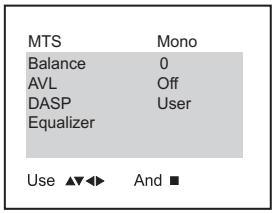
Sleep timer turns the TV off at a preset time. Use the sleep button to set sleep timer. Each press of sleep changes the setting as shown below.



To cancel sleep time setting, press the sleep button repeatedly to select [—]. When a sleep time you want is displayed on the screen, let the screen display disappear and the sleep time is set.

To check remaining sleep time, press the sleep button once. If you turn the TV off after setting sleep timer, the setting will be erased.

AUDIO SETUP



AVL SETUP

AVL (Auto Volume Leveler) maintains an equal volume level automatically even if the channel is changed. Use the channel up/down button to select the AVL option. Use the volume up/down button to select on or off and then press the enter button.

SOUND BALANCE

Use the channel up/down button to select the Balance option. Press the volume up/down button to adjust the balance and press the enter button to save. Balance is preset at 0 (center).

SAP (SECOND AUDIO PROGRAM)

SAP contains the secondary language signal in addition to the primary language. There are the primary and secondary languages and stereo modes in bilingual signal.

Use the channel up/down button to select the MTS option. Each press of volume up/down buttons changes the audio mode as shown. Press the enter button to select and exit.

DASP

Use the menu button to select the Audio menu. Press the channel up/down buttons to select the DASP option.Each press of volume up/down button changes the DASP sound option between User, Cinema, Sports, or Music.

EQUALIZER ADJUSTMENTS

Use the channel up/down buttons to select the User/ Equalizer option. Use the volume up/down button to select a band to adjust. Use the channel up/down buttons to adjust the band level. Select another band to adjust or press the enter button to select and exit.

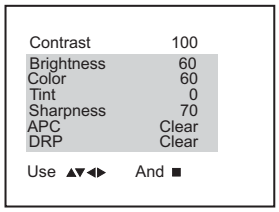
MUTE

Mute removes the speaker sound. Press mute on the remote to mute the sound. To restore sound, press the mute button or volume up/down buttons. When muted sound is restored, current volume level is displayed on the screen.

HEADPHONE JACK

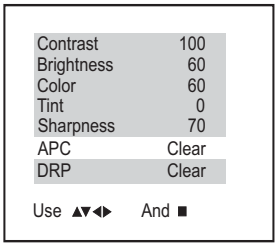
Plug a Headphone into the jack. Adjust the sound level to a headphone using the volume up/down buttons. While listening to sound through a headphone(s), TV speakers are turned off.

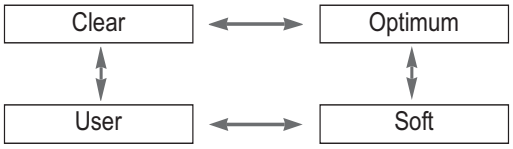
VIDEO



APC (AUTO PICTURE CONTROL)

APC adjusts the TV for the best picture appearance. Use the channel up/down buttons to select the APC option. Each press of volume up/down button selects a different picture appearance. Options are Clear, Optimum, User, and Soft. Press the enter button to select and exit.





MANUAL PICTURE CONTROL

Use the volume up/down button to change the settings. Contrast, Brightness, Sharpness, and Color are adjustable from 0 to 100. Tint is adjustable from Red 50 to Green 50. Press the enter button to select and exit. APC is turned off if you change any settings.

DRP (DIGITAL REALITY PICTURE)

DRP improves picture outline dark areas. Use the channel up/down button to select the DRP option. Use the volume up/down buttons to select Clear and then press the enter button. Each press of volume up/ down buttons changes the screen display to Clear or Soft.

FINE TUNING

Fine Tuning optimizes reception of a poor signal. For example, a horizontal stripe, twisted picture, no color, or weak station.

Use the channel up/down buttons to select the Fine option. Press the volume up button. Use the volume up/down buttons to improve the picture (signal) reception. When the picture appearance is best, press the enter button.

SERVICING

ADJUSTMENTS

APPLICATION OBJECT

Notes

(1) This set uses an adapter, so connect the adapter and the set correctly before adjustment.

(2) The adjustment must be performed under the correct sequence.

(3) The adjustment must be performed in the circumstance of 25 +/-5 °C and 65 +/-10% of relative humidity if there is no specific designation.

(4) The input voltage of the receiver must keep 110V, 60Hz during adjustment.

(5) The set must be operated for 30 minutes before adjustment.

(6) Heat Run must be performed with a full white signal or TV noise signal.

DVCO ADJUSTMENT

(1) Receive the Digital Pattern.

(2) Select DVCO ADJ by pressing ADJ Key (or SVC Key) of Remote Control for Adjustment.

(3) Press the VOL + Key repeatly to appear (OK).

AUTO RGB ADJUSTMENT

(1) Adjust RGB after performing DVCO Adjustment.

(2) Receive a Digital Pattern.

(3) Select AUTO RGB ADJ by pressing ADJ Key (or SVC Key) of Remote Control for Adjustment.

(4) Press the VOL + Key repeatly to appear (OK).

RGB LEVEL ADJUSTMENT

Equipment

(1) Pattern Generator (408NPS-READER) with 10 STEP if available.

(2) A Remote Control for Adjustment.

Adjustment

(1) Select RGB LEVEL by pressing ADJ Key (or SVC Key) of Remote Control for Adjustment.

(2) Select it by using VOL + Key.

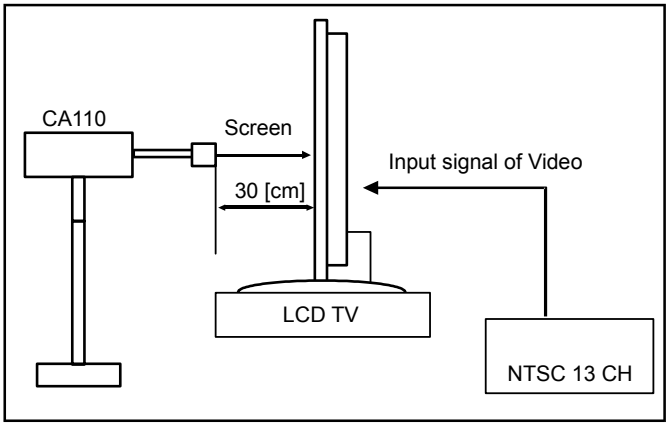
(3) Adjust that until 9th and 10th STEP is undistinguished by using VOL +/- Key in R-DRIVE item.

(4) Adjust G-DRIVE and B-DRIVE.

(5) When adjustment is finished, exit by pressing ENTER Key.

USING METHOD FOR CA-110

Use it in case of needing adjustment brightness.



PARTS

This model is a Factory Service Repair model (in and out of warranty) and is covered by a one year warranty. For service, the end user should call 1-800-984-9349 for complete shipping and handling instructions (or call 1-877-9ZENITH). Refer to the last page of the opguide for more information.

Parts contact information:

Voice: 1-888-3-ZENITH
Fax: 1-888-6-ZENITH
Mail: Zenith National Parts
201 James Record Road
Huntsville, AL 35824-1513

MODEL PARTS

LOC.	PART NO.	DESCRIPTION
1	3091V00A20G	CABINET ASSY, ZENITH
2	120-D44E	SPEAKER G705/080701A MOTORJOY 4OHM
3	6871VSMA75F	POWER PCB ASSY
4	5020V00553E	BUTTON SET (#39)
5	5020V00552H	BUTTON SET
6	6871VSMA74A	CTL PCB ASSY
7	6304VT2011A	LCD,LC201V1-A1 20.1
8	6633VA0003D	INVERTER ASSY, 15VOLT KUBNKM022A
9	6871VSM814B	MX PCB ASSY
10	6871VMM644L	MAIN PCB ASSY
11	6871VSM812B	TUNER PCB ASSY
12	3809V00A10J	BACK COVER ASSY
13	3550V00202A	A/V COVER ABS
14	4950V00081B	METAL HINGE FIXER SUS304
15	4811V00019E	BRACKET ASSY

COMPONENT PARTS

LOC.	PART NO.	DESCRIPTION
C10	0CQ3321N509	CAP,FIXED, 0.0033UF D 100V 10%
C101	0CE476DH618	CAP,FIXED ELECTRO, 47UF STD 25V 20%
C102	0CQ1031N509	CAP,FIXED, 0.01UF D 100V 10%
C104	0CE108DD618	CAP,FIXED ELECTRO, 1000UF STD 10V 20%
C107	0CE106DK618	CAP,FIXED ELECTRO, 10UF STD 50V 20%
C11	0CQ6831N509	CAP,FIXED, 0.068UF D 100V 10%
C1101	0CE107DD618	CAP,FIXED ELECTRO, 100UF STD 10V 20%
C1102	0CN1030F679	CAP,FIXED TUBULAR(HDE), 10000PF D 16V 20%
C112	0CE475DK618	CAP,FIXED ELECTRO, 4.7UF STD 50V 20%
C12	0CE227DD618	CAP,FIXED ELECTRO, 220UF STD 10V 20%
C16	0CQ1041N509	CAP,FIXED, 0.1UF D 100V 10%
C2	0CQ6821N509	CAP,FIXED, 0.0068UF D 100V 10%
C205	0CE107DF618	CAP,FIXED ELECTRO, 100UF STD 16V 20%
C209	0CE106DF618	CAP,FIXED ELECTRO, 10UF STD 16V 20%
C210	0CE106DF618	CAP,FIXED ELECTRO, 10UF STD 16V 20%
C231	0CE476DF618	CAP,FIXED ELECTRO, 47UF STD 16V 20%
C232	0CE107DF618	CAP,FIXED ELECTRO, 100UF STD 16V 20%
C238	0CE476DF618	CAP,FIXED ELECTRO, 47UF STD 16V 20%
C24	0CE106DF618	CAP,FIXED ELECTRO, 10UF STD 16V 20%
C240	0CK224DF56A	CAP,FIXED CERAMIC(HDE), 220000PF 2012 16V 10%
C241	0CK224DF56A	CAP,FIXED CERAMIC(HDE), 220000PF 2012 16V 10%
C242	0CE226DF618	CAP,FIXED ELECTRO, 22UF STD 16V 20%
C244	0CE107DF618	CAP,FIXED ELECTRO, 100UF STD 16V 20%
C248	0CK224DF56A	CAP,FIXED CERAMIC(HDE), 220000PF 2012 16V 10%
C249	0CK224DF56A	CAP,FIXED CERAMIC(HDE), 220000PF 2012 16V 10%
C25	0CE106DF618	CAP,FIXED ELECTRO, 10UF STD 16V 20%
C250	0CK224DF56A	CAP,FIXED CERAMIC(HDE), 220000PF 2012 16V 10%
C251	0CK224DF56A	CAP,FIXED CERAMIC(HDE), 220000PF 2012 16V 10%
C253	0CK224DF56A	CAP,FIXED CERAMIC(HDE), 220000PF 2012 16V 10%
C254	0CE105DK618	CAP,FIXED ELECTRO, 1UF STD 50V 20%
C255	0CK224DF56A	CAP,FIXED CERAMIC(HDE), 220000PF 2012 16V 10%
C256	0CE105DK618	CAP,FIXED ELECTRO, 1UF STD 50V 20%
C257	0CK224DF56A	CAP,FIXED CERAMIC(HDE), 220000PF 2012 16V 10%
C262	0CE4741K636	CAP,FIXED ELECTRO, 0.47UF SM,SA 50V 20%
C263	0CE224DK618	CAP,FIXED ELECTRO, 0.22UF STD 50V 20%
C273	0CE4741K636	CAP,FIXED ELECTRO, 0.47UF SM,SA 50V 20%
C274	0CE4741K636	CAP,FIXED ELECTRO, 0.47UF SM,SA 50V 20%
C3	0CQ6831N509	CAP,FIXED, 0.068UF D 100V 10%
C312	0CE107DF618	CAP,FIXED ELECTRO, 100UF STD 16V 20%
C313	0CE107DF618	CAP,FIXED ELECTRO, 100UF STD 16V 20%
C314	0CE107DF618	CAP,FIXED ELECTRO, 100UF STD 16V 20%
C315	0CE107DF618	CAP,FIXED ELECTRO, 100UF STD 16V 20%
C320	0CE107DF618	CAP,FIXED ELECTRO, 100UF STD 16V 20%
C321	0CE107DF618	CAP,FIXED ELECTRO, 100UF STD 16V 20%
C343	0CE476DF618	CAP,FIXED ELECTRO, 47UF STD 16V 20%
C349	0CE106DF618	CAP,FIXED ELECTRO, 10UF STD 16V 20%
C359	0CE107DF618	CAP,FIXED ELECTRO, 100UF STD 16V 20%
C402	0CE476DF618	CAP,FIXED ELECTRO, 47UF STD 16V 20%
C408	181-007H	CAP,DRAWING, MPE ECQ-V1H474JL3(TR), 50V 0.47UF
C417	0CE476DF618	CAP,FIXED ELECTRO, 47UF STD 16V 20%
C418	0CE106DF618	CAP,FIXED ELECTRO, 10UF STD 16V 20%
C419	0CE105BK618	CAP,FIXED ELECTRO, 1UF KME TYPE 50V 20%
C422	181-007H	CAP,DRAWING, MPE ECQ-V1H474JL3(TR), 50V 0.47UF
C423	0CE106DF618	CAP,FIXED ELECTRO, 10UF STD 16V 20%
C431	0CE476BK618	CAP,FIXED ELECTRO, 47UF KME TYPE 50V 20%
C435	0CE107BF618	CAP,FIXED ELECTRO, 100UF KME TYPE 16V 20%
C439	0CE477BF618	CAP,FIXED ELECTRO, 470UF KME TYPE 16V 20%
C5	0CE107BF618	CAP,FIXED ELECTRO, 100UF KME TYPE 16V 20%
C604	0CE107SF6DC	CAP,FIXED ELECTRO, 100UF MVG 16V 20% SMD
C606	0CE107SF6DC	CAP,FIXED ELECTRO, 100UF MVG 16V 20% SMD

C607	0CE106SH6DC	CAP,AL.ELECTRO, 10UF MVG 25V M SMD R
C627	0CE107SF6DC	CAP,FIXED ELECTRO, 100UF MVG 16V 20% SMD
C631	0CE107SF6DC	CAP,FIXED ELECTRO, 100UF MVG 16V 20% SMD
C640	0CE227SC6DC	CAP,FIXED ELEC, 220UF MVG 6.3V M SMD
C641	0CE227SC6DC	CAP,FIXED ELEC, 220UF MVG 6.3V M SMD
C7	0CE107DF618	CAP,FIXED ELECTRO, 100UF STD 16V 20%
C801	0CE476DK618	CAP,FIXED ELECTRO, 47UF STD 50V 20%
C802	0CE107DF618	CAP,FIXED ELECTRO, 100UF STD 16V 20%
C803	0CE477BF618	CAP,FIXED ELECTRO, 470UF KME TYPE 16V 20%
C804	0CE477BF618	CAP,FIXED ELECTRO, 470UF KME TYPE 16V 20%
C805	0CE477BF618	CAP,FIXED ELECTRO, 470UF KME TYPE 16V 20%
C806	0CE477BF618	CAP,FIXED ELECTRO, 470UF KME TYPE 16V 20%
C807	0CE227BH618	CAP,FIXED ELECTRO, 220UF KME TYPE 25V 20%
C812	0CE227BH618	CAP,FIXED ELECTRO, 220UF KME TYPE 25V 20%
C814	0CE475DK618	CAP,FIXED ELECTRO, 4.7UF STD 50V 20%
C816	0CE107DH618	CAP,FIXED ELECTRO, 100UF STD 25V 20%
C816	0CE107DH618	CAP,FIXED ELECTRO, 100UF STD 25V 20%
C819	0CE106DF618	CAP,FIXED ELECTRO, 10UF STD 16V 20%
C820	0CE227DH618	CAP,FIXED ELECTRO, 220UF STD 25V 20%
C826	0CE337DH618	CAP,FIXED ELECTRO, 330UF STD 25V 20%
C827	0CE477BF618	CAP,FIXED ELECTRO, 470UF KME TYPE 16V 20%
C828	0CE477BF618	CAP,FIXED ELECTRO, 470UF KME TYPE 16V 20%
C871	0CE477DF618	CAP,FIXED ELECTRO, 470UF STD 16V 20%
C872	0CE337DH618	CAP,FIXED ELECTRO, 330UF STD 25V 20%
C880	0CE477BF618	CAP,FIXED ELECTRO, 470UF KME TYPE 16V 20%
C881	0CE107DF618	CAP,FIXED ELECTRO, 100UF STD 16V 20%
C882	0CE227DH618	CAP,FIXED ELECTRO, 220UF STD 25V 20%
C904	0CE476BK618	CAP,FIXED ELECTRO, 47UF KME TYPE 50V 20%
C908	0CE107BF618	CAP,FIXED ELECTRO, 100UF KME TYPE 16V 20%
C909	0CE225BK618	CAP,FIXED ELECTRO, 2.2UF KME TYPE 50V 20%
C910	0CQ1031N509	CAP,FIXED, 0.01UF D 100V 10%
C914	0CE107BH618	CAP,FIXED ELECTRO, 100UF KME TYPE 25V 20%
C916	0CE107DF618	CAP,FIXED ELECTRO, 100UF STD 16V 20%
C92	0CE105DK618	CAP,FIXED ELECTRO, 1UF STD 50V 20%
C922	0CE106DF618	CAP,FIXED ELECTRO, 10UF STD 16V 20%
C926	0CE107DF618	CAP,FIXED ELECTRO, 100UF STD 16V 20%
C927	0CE107BF618	CAP,FIXED ELECTRO, 100UF KME TYPE 16V 20%
C928	0CE225BK618	CAP,FIXED ELECTRO, 2.2UF KME TYPE 50V 20%
C930	0CE107BF618	CAP,FIXED ELECTRO, 100UF KME TYPE 16V 20%
C932	0CK224DF56A	CAP,FIXED CERAMIC(HDE), 220000PF 2012 16V 10%
C933	0CK224DF56A	CAP,FIXED CERAMIC(HDE), 220000PF 2012 16V 10%
C935	0CE106DF618	CAP,FIXED ELECTRO, 10UF STD 16V 20%
C936	0CK224DF56A	CAP,FIXED CERAMIC(HDE), 220000PF 2012 16V 10%
C937	0CK224DF56A	CAP,FIXED CERAMIC(HDE), 220000PF 2012 16V 10%
C938	0CK224DF56A	CAP,FIXED CERAMIC(HDE), 220000PF 2012 16V 10%
C94	0CE476DF618	CAP,FIXED ELECTRO, 47UF STD 16V 20%
C940	0CK224DF56A	CAP,FIXED CERAMIC(HDE), 220000PF 2012 16V 10%
C943	0CE335DK618	CAP,FIXED ELECTRO, 3.3UF STD 50V 20%
C944	0CE106DF618	CAP,FIXED ELECTRO, 10UF STD 16V 20%
C945	0CE477DF618	CAP,FIXED ELECTRO, 470UF STD 16V 20%
C95	0CE105CK636	CAP,FIXED ELECTRO, 1UF SHL,SD 50V 20%
C951	0CQ1031N509	CAP,FIXED, 0.01UF D 100V 10%
C954	0CE477DH618	CAP,FIXED ELECTRO, 470UF STD 25V 20%
C955	0CE476BK618	CAP,FIXED ELECTRO, 47UF KME TYPE 50V 20%
C959	0CE477DH618	CAP,FIXED ELECTRO, 470UF STD 25V 20%
C960	0CE477DH618	CAP,FIXED ELECTRO, 470UF STD 25V 20%
D1	0DD181009AB	DIODE,SWITCHING, KDS181 TP KEC 85V,300MA
D801	0DL112100AB	LED, SM3411(DL-11S2GN1) Y-GREEN -
D802	0DL112100AA	LED, SR3411(DL-11S2RN1) RED -
D804	0DD100009AM	DIODE,RECTIFIERS, EU1ZV(1) 200V 0.25A 15A 0.4US
D805	0DD181009AB	DIODE,SWITCHING, KDS181 TP KEC 85V,300MA
D806	0DD181009AB	DIODE,SWITCHING, KDS181 TP KEC 85V,300MA
D807	0DD181009AB	DIODE,SWITCHING, KDS181 TP KEC 85V,300MA
D901	0DD181009AB	DIODE,SWITCHING, KDS181 TP KEC 85V,300MA
D902	0DD181009AB	DIODE,SWITCHING, KDS181 TP KEC 85V,300MA
DJ201	380-362K	JACK,RCA, PJ 6035K PARKELEC 2P
EJ201	6613V00008F	JACK ASSY, PMJ014F PARK ELEC E/
F801	0FS6300B84B	FUSE,SLOW BLOW, SLOW BLOW 630MA 250
F802	0FT2001A86B	FUSE,TIME LAG, 2000MA 125 V 8.6X4X8
IC1	0IZZVC0013H	IC,DRAWING, SDA555X 52PIN , ST I
IC10	0ISA721700C	IC,SANYO, LA7217M MFP14 TP SYNC SEPARATOR ML-00BA
IC2	0IAL241610B	IC,ATMEL, AT24C16-10PC-2.7 8PIN DIP ST EEPROM
IC201	0IIT323000D	IC,ITT, VPC3230D QA B4 80P
IC3	0ICTMZI001A	IC,CUSTOMIZED, Z8622912SSC ZILOG 18
IC301	0IHY100100A	IC,HYUNDAI, LGTV1001 64P QFP PROG. H-FILTER
IC302	0ISM941000A	IC,SIEMENS, SDA9410 100QFP SCAN CONV. FD-60X3R
IC303	6200VKR001A	FILTER(CIRC),BAND PASS, LPF 1EA SMD H354LAI-K5206
IC305	6200VKR001A	FILTER(CIRC),BAND PASS, LPF 1EA SMD H354LAI-K5206
IC4	0IFA752700A	IC,FAIRCHILD, KA75270Z 3 TP RE-SET IC MC-007
IC401	0ISO210100B	IC,SONY, CXA2101AQ 80P,QFP VIDEO SIGNAL PROCESSOR
IC402	0ISH092100B	IC,SHARP, PQ09RD21 4SIP ST REGULATOR
IC402	0ISH092100B	IC,SHARP, PQ09RD21 4SIP ST REGULATOR

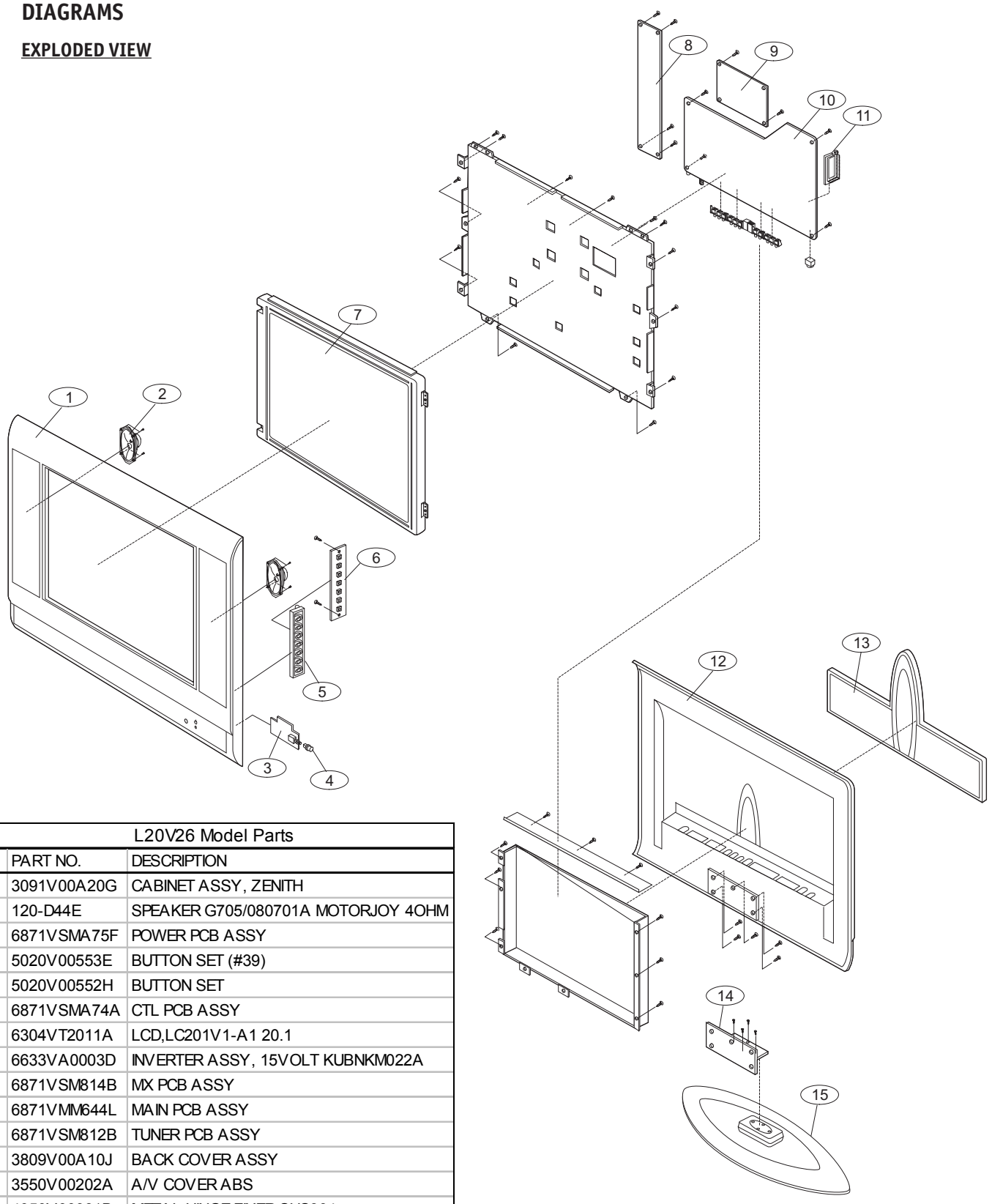
IC501	0ITI808300B	IC,TEXAS INSTRUMENT, THS8083 100QFP ADC IC PD-40X3
IC502	0IMR882840B	IC,MACRONIX, MX88L284-V 208QFP SCALE MF004A
IC505	0ISS416162B	IC,SAMSUNG,K4S161622D-TC80 50 TSOP SDRAM
IC506	0TF492509AA	TRANSISTOR,FETS, SI4925DY TP TEMIC 30V 6.1A
IC507	0IKE702700D	IC,KEC, KIA7027AF 3, SOT-89 TP RESET IC 2.7V
IC508	0ICTMM0001A	IC,CUSTOMIZED, SC786104DWR2 MOTOROL
IC509	0IKE703300E	IC,KEC, KIA7033AF 3P SOT-89
IC801	0ITC786000A	IC,TEMIC, SI786 28SSOP
IC802	0TFVI80001A	TRANSISTOR,FETS, VISHAY SI4808DY
IC803	0TFVI80001A	TRANSISTOR,FETS, VISHAY SI4808DY
IC806	0TF492509AA	TRANSISTOR,FETS, SI4925DY TP TEMIC 30V 6.1A
IC807	0TF492509AA	TRANSISTOR,FETS, SI4925DY TP TEMIC 30V 6.1A
IC808	0TF492509AA	TRANSISTOR,FETS, SI4925DY TP TEMIC 30V 6.1A
IC809	0IKE781200P	IC,KEC, KIA7812API TO220 ST 3P 12V REGULATOR
IC850	0ISH092100B	IC,SHARP, PQ09RD21 4SIP ST REGULATOR
IC851	0ISH323422A	IC,SHARP, PQ3RF23 4P(TO-220) 3.3V REGUL
IC852	0IKE780500P	IC,KEC, KIA78L05BP(AT) 3P 5V,150MA
IC853	0ISH052100C	IC,SHARP, PQ05RD21 4SIP ST REGULATOR
IC854	0ISH122100B	IC,SHARP, PQ12RD21 4SIP ST REGULATOR
IC901	0IMCRMN002A	IC,MICRO CONTROLLER, MSP3400G QA B6 MICRO
IC902	0IKE703300E	IC,KEC, KIA7033AF 3P SOT-89
IC903	0IKE780800J	IC,KEC, KIA7808API 3 ST REGULATOR
IC904	0IKE780500Q	IC,KEC, KIA7805API 3P TO-220 ST REGULATOR 5V(=KIA7805PI)
IC905	0ISA428200A	IC,SANYO, LA4282 12S 2CHX10W AUDIO AMP
L1	0IFA270000A	IC,FAIRCHILD, 2N7000TA TO-92, LEVEL SHIFT 60V/0.2A,MC007A
L101	6210TCE001G	FILTER(CIRC),EMC, HH-1M3216-501 CERATEC 3216MM
L102	6210TCE001G	FILTER(CIRC),EMC, HH-1M3216-501 CERATEC 3216MM
L103	0LA0272K139	INDUCTOR,AXIAL LEAD, 27UH 10% A 4.0 X 10.5
L1101	0LA0222K119	INDUCTOR,AXIAL LEAD, 22UH 10% A 2.3 X 3.4
L2	0IFA270000A	IC,FAIRCHILD, 2N7000TA TO-92, LEVEL SHIFT 60V/0.2A,MC007A
L207	6210TCE001A	FILTER(CIRC),EMC, HB-1S2012-080JT CERATEC
L209	6210TCE001A	FILTER(CIRC),EMC, HB-1S2012-080JT CERATEC
L210	6210TCE001G	FILTER(CIRC),EMC, HH-1M3216-501 CERATEC 3216MM
L211	6210TCE001A	FILTER(CIRC),EMC, HB-1S2012-080JT CERATEC
L212	6210TCE001A	FILTER(CIRC),EMC, HB-1S2012-080JT CERATEC
L214	0LA0331K119	INDUCTOR,AXIAL LEAD, 3.3UH 10% A 2.3 X 3.4
L215	0LA0331K119	INDUCTOR,AXIAL LEAD, 3.3UH 10% A 2.3 X 3.4
L216	0LA0331K119	INDUCTOR,AXIAL LEAD, 3.3UH 10% A 2.3 X 3.4
L217	0LA0331K119	INDUCTOR,AXIAL LEAD, 3.3UH 10% A 2.3 X 3.4
L218	0LA0331K119	INDUCTOR,AXIAL LEAD, 3.3UH 10% A 2.3 X 3.4
L305	6210TCE001G	FILTER(CIRC),EMC, HH-1M3216-501 CERATEC 3216MM
L306	6210TCE001G	FILTER(CIRC),EMC, HH-1M3216-501 CERATEC 3216MM
L307	6210TCE001G	FILTER(CIRC),EMC, HH-1M3216-501 CERATEC 3216MM
L308	6210TCE001G	FILTER(CIRC),EMC, HH-1M3216-501 CERATEC 3216MM
L309	6210TCE001G	FILTER(CIRC),EMC, HH-1M3216-501 CERATEC 3216MM
L310	6210TCE001G	FILTER(CIRC),EMC, HH-1M3216-501 CERATEC 3216MM
L311	6210TCE001G	FILTER(CIRC),EMC, HH-1M3216-501 CERATEC 3216MM
L312	6210TCE001A	FILTER(CIRC),EMC, HB-1S2012-080JT CERATEC
L401	6210TCE001G	FILTER(CIRC),EMC, HH-1M3216-501 CERATEC 3216MM
L402	6210TCE001G	FILTER(CIRC),EMC, HH-1M3216-501 CERATEC 3216MM
L403	6210TCE001G	FILTER(CIRC),EMC, HH-1M3216-501 CERATEC 3216MM
L511	6210TCE001A	FILTER(CIRC),EMC, HB-1S2012-080JT CERATEC
L512	6210TCE001A	FILTER(CIRC),EMC, HB-1S2012-080JT CERATEC
L519	6210TCE001E	FILTER(CIRC),EMC, HB-1M2012-800JT CERATEC 2012MM
L601	6210TCE001G	FILTER(CIRC),EMC, HH-1M3216-501 CERATEC 3216MM
L602	6210TCE001G	FILTER(CIRC),EMC, HH-1M3216-501 CERATEC 3216MM
L603	6210TCE001G	FILTER(CIRC),EMC, HH-1M3216-501 CERATEC 3216MM
L801	6140VB0004B	COIL,CHOKE, 26UH 1UEWPHY 22.5TURN YL-9N 0.4
L802	6140VB0004B	COIL,CHOKE, 26UH 1UEWPHY 22.5TURN YL-9N 0.4
L803	6210TCE001G	FILTER(CIRC),EMC, HH-1M3216-501 CERATEC 3216MM
L804	6140VB0004A	COIL,CHOKE, 9.5UH 1UEWPHY 13.5TURN YL-9N 0.5
L805	6210TCE001G	FILTER(CIRC),EMC, HH-1M3216-501 CERATEC 3216MM
L806	6210TCE001G	FILTER(CIRC),EMC, HH-1M3216-501 CERATEC 3216MM
L807	6210TCE001G	FILTER(CIRC),EMC, HH-1M3216-501 CERATEC 3216MM
L90	6210TCE001G	FILTER(CIRC),EMC, HH-1M3216-501 CERATEC 3216MM
L901	6210TCE001G	FILTER(CIRC),EMC, HH-1M3216-501 CERATEC 3216MM
L902	6210TCE001G	FILTER(CIRC),EMC, HH-1M3216-501 CERATEC 3216MM
L903	6210TCE001G	FILTER(CIRC),EMC, HH-1M3216-501 CERATEC 3216MM

L91	6210TCE001G	FILTER(CIRC),EMC, HH-1M3216-501 CERATEC 3216MM
L910	6210TCE001G	FILTER(CIRC),EMC, HH-1M3216-501 CERATEC 3216MM
LA801	6210VC0004A	FILTER(CIRC),EMC,3216 4S600 TAIYOYUDEN
LA802	6210VC0004A	FILTER(CIRC),EMC,3216 4S600 TAIYOYUDEN
LA803	6210VC0004A	FILTER(CIRC),EMC,3216 4S600 TAIYOYUDEN
LA804	6210VC0004A	FILTER(CIRC),EMC,3216 4S600 TAIYOYUDEN
LA805	6210VC0004A	FILTER(CIRC),EMC,3216 4S600 TAIYOYUDEN
LA806	6210VC0004A	FILTER(CIRC),EMC,3216 4S600 TAIYOYUDEN
LA811	6210VC0004A	FILTER(CIRC),EMC,3216 4S600 TAIYOYUDEN
LA812	6210VC0004A	FILTER(CIRC),EMC,3216 4S600 TAIYOYUDEN
LA813	6210VC0004A	FILTER(CIRC),EMC,3216 4S600 TAIYOYUDEN
LA814	6210VC0004A	FILTER(CIRC),EMC,3216 4S600 TAIYOYUDEN
LA815	6210VC0004A	FILTER(CIRC),EMC,3216 4S600 TAIYOYUDEN
LD11010	DL112100AB	LED, SM3411(DL-11S2GN1) Y-GREEN -
MJ201	6613V00004P	JACK ASSY, PJ6054P PARK ELEC R
P1	5240VE0001F	LEAD SET, UL 1015 AWG 22 TWI 3
P1101	6631V20014E	CONNECTOR ASSY, 12P 300MM H-B UL 100
P1103	6631V25049F	CONNECTOR ASSY, 4P 250MM H-B UL1007
PA11016	726VV0006D	REMOTE CONTROL RECEIVER, TSOP4838ON1 TEMIC 38.0KHZ HOLDER LESS
PJ801	6612VAH001C	JACK,HEADPHONE, DC-003 UNITOP 4PIN POWER JACK .
PJ802	6612TAH002A	JACK,HEADPHONE, DC-001 UNITOP DC-001 2.0MM (UNITOP)
Q1	0TR387500AA	TRANSISTOR, BIPOLARS, CHIP 2SC3875S(ALY)
Q101	0TR387500AA	TRANSISTOR, BIPOLARS, CHIP 2SC3875S(ALY)
Q103	0TR387500AA	TRANSISTOR,BIPOLARS, CHIP 2SC3875S(ALY)
Q1101	0TR126609AA	TRANSISTOR,BIPOLARS, KTA TP KEC - 1266- -Y (KTA1015)
Q201	0TR387500AA	TRANSISTOR,BIPOLARS, CHIP 2SC3875S(ALY)
Q202	0TR387500AA	TRANSISTOR,BIPOLARS, CHIP 2SC3875S(ALY)
Q203	0TR387500AA	TRANSISTOR,BIPOLARS, CHIP 2SC3875S(ALY)
Q205	0TR387500AA	TRANSISTOR,BIPOLARS, CHIP 2SC3875S(ALY)
Q206	0TR387500AA	TRANSISTOR,BIPOLARS, CHIP 2SC3875S(ALY)
Q207	0TR387500AA	TRANSISTOR,BIPOLARS, CHIP 2SC3875S(ALY)
Q208	0TR387500AA	TRANSISTOR,BIPOLARS, CHIP 2SC3875S(ALY)
Q209	0TR387500AA	TRANSISTOR,BIPOLARS, CHIP 2SC3875S(ALY)
Q210	0TR387500AA	TRANSISTOR,BIPOLARS, CHIP 2SC3875S(ALY)
Q211	0TR387500AA	TRANSISTOR,BIPOLARS, CHIP 2SC3875S(ALY)
Q212	0TR387500AA	TRANSISTOR,BIPOLARS, CHIP 2SC3875S(ALY)
Q213	0TR387500AA	TRANSISTOR,BIPOLARS, CHIP 2SC3875S(ALY)
Q214	0TR150400BA	TRANSISTOR,BIPOLARS, CHIP 2SA1504S(ASY)
Q214	0TR150400BA	TRANSISTOR,BIPOLARS, CHIP 2SA1504S(ASY)
Q215	0TR387500AA	TRANSISTOR,BIPOLARS, CHIP 2SC3875S(ALY)
Q216	0TR387500AA	TRANSISTOR,BIPOLARS, CHIP 2SC3875S(ALY)
Q3	0TR387500AA	TRANSISTOR,BIPOLARS, CHIP 2SC3875S(ALY)
Q301	0TR150400BA	TRANSISTOR,BIPOLARS, CHIP 2SA1504S(ASY)
Q302	0TR150400BA	TRANSISTOR,BIPOLARS, CHIP 2SA1504S(ASY)
Q303	0TR150400BA	TRANSISTOR,BIPOLARS, CHIP 2SA1504S(ASY)
Q304	0TR150400BA	TRANSISTOR,BIPOLARS, CHIP 2SA1504S(ASY)
Q305	0TR150400BA	TRANSISTOR,BIPOLARS, CHIP 2SA1504S(ASY)
Q306	0TR150400BA	TRANSISTOR,BIPOLARS, CHIP 2SA1504S(ASY)
Q401	0TR150400BA	TRANSISTOR,BIPOLARS, CHIP 2SA1504S(ASY)
Q402	0TR150400BA	TRANSISTOR,BIPOLARS, CHIP 2SA1504S(ASY)
Q403	0TR150400BA	TRANSISTOR,BIPOLARS, CHIP 2SA1504S(ASY)
Q404	0TR387500AA	TRANSISTOR,BIPOLARS, CHIP 2SC3875S(ALY)
Q460	0TR387500AA	TRANSISTOR,BIPOLARS, CHIP 2SC3875S(ALY)
Q50	0TR387500AA	TRANSISTOR,BIPOLARS, CHIP 2SC3875S(ALY)
Q501	0TR387500AA	TRANSISTOR,BIPOLARS, CHIP 2SC3875S(ALY)
Q801	0TR387500AA	TRANSISTOR,BIPOLARS, CHIP 2SC3875S(ALY)
Q90	0TR387500AA	TRANSISTOR,BIPOLARS, CHIP 2SC3875S(ALY)
Q901	0TR150400BA	TRANSISTOR,BIPOLARS, CHIP 2SA1504S(ASY)
Q902	0TR150400BA	TRANSISTOR,BIPOLARS, CHIP 2SA1504S(ASY)
Q903	0TR150400BA	TRANSISTOR,BIPOLARS, CHIP 2SA1504S(ASY)
R1101	0RD4701F609	RESISTOR,CARBON FILM, 4.7KOHM 1/6W 5%
R1102	0RD3300F609	RESISTOR,CARBON FILM, 330 OHM 1/6 W 5%
R1104	0RD1201F609	RESISTOR,CARBON FILM, 1.2K OHM 1/6 W 5%
R1107	0RD4701F609	RESISTOR,CARBON FILM, 4.7KOHM 1/6W 5%
R1108	0RD4701F609	RESISTOR,CARBON FILM, 4.7KOHM 1/6W 5%
R1109	0RD4701F609	RESISTOR,CARBON FILM, 4.7KOHM 1/6W

		5%
R1110	0RD4701F609	RESISTOR,CARBON FILM, 4.7KOHM 1/6W 5%
R250	0RD1200H609	RESISTOR,CARBON FILM, 120 OHM 1/2 W 5%
R253	0RD1200H609	RESISTOR,CARBON FILM, 120 OHM 1/2 W 5%
R321	0RN2202F409	RESISTOR,FIXED METAL FILM, 22K OHM 1/6 W 1.00% TA52
R322	0RN5602F409	RESISTOR,FIXED METAL FILM, 56K OHM 1/6 W 1.00% TA52
R803	0RHZVTA001A	RESISTOR,DRAWING, 0.025 OHM 1W 2% 2512, IRC
R804	0RHZVTA001A	RESISTOR,DRAWING, 0.025 OHM 1W 2% 2512, IRC
R880	0RHZVTA001A	RESISTOR,DRAWING, 0.025 OHM 1W 2% 2512, IRC
R932	0RF0561K607	RESISTOR,DRAWING, 5.6 OHM 2 W 5.00% TA62
RA501	0RRZVTA001A	RESISTOR,DRAWING, MNR-14-E0A-J-101 100OHM 5%
RA502	0RRZVTA001A	RESISTOR,DRAWING, MNR-14-E0A-J-101 100OHM 5%
RA503	0RRZVTA001A	RESISTOR,DRAWING, MNR-14-E0A-J-101 100OHM 5%
RA504	0RRZVTA001A	RESISTOR,DRAWING, MNR-14-E0A-J-101 100OHM 5%
RA505	0RRZVTA001A	RESISTOR,DRAWING, MNR-14-E0A-J-101 100OHM 5%
RA506	0RRZVTA001A	RESISTOR,DRAWING, MNR-14-E0A-J-101 100OHM 5%
RA507	6210VC0004A	FILTER(CIRC),EMC,3216 4S600 TAIYOYUDEN
SJ201	6612VJH008D	JACK,RCA, PJ6063D PARKELEC DVD
SW1101		140-313A SWITCH,TACT, TACT 2LEAD 100G(TA)
SW1101		6600VM1001A SWITCH,PUSH, SDKLA1 ALPS UL/CSA 250V 5A
SW1102		140-313A SWITCH,TACT, TACT 2LEAD 100G(TA)
SW1103		140-313A SWITCH,TACT, TACT 2LEAD 100G(TA)
SW1104		140-313A SWITCH,TACT, TACT 2LEAD 100G(TA)
SW1105		140-313A SWITCH,TACT, TACT 2LEAD 100G(TA)
SW1106		140-313A SWITCH,TACT, TACT 2LEAD 100G(TA)
SW1107		140-313A SWITCH,TACT, TACT 2LEAD 100G(TA)
SY302	6200VKR001B	FILTER(CIRC),BAND PASS, LPF 2EA SMD TH355LSK-K5214
SY525	6210VC0004A	FILTER(CIRC),EMC,3216 4S600 TAIYOYUDEN
SY526	6210VC0004A	FILTER(CIRC),EMC,3216 4S600 TAIYOYUDEN
SY527	6210VC0004A	FILTER(CIRC),EMC,3216 4S600 TAIYOYUDEN
SY532	6210VC0004A	FILTER(CIRC),EMC,3216 4S600 TAIYOYUDEN
T801	6170VTCA30A	TRANSFORMER,CONV.[COIL], EPC 13-Z 320UH DC-DC CONV. SI-786 (NF-99LA)
TU301	6700VNF019C	TUNER, TAFC-H101P LG PRECISION CO., LTD
		NTSC PHONO 45.75M
X1	156-A01L	RESONATOR,CRYSTAL, HC49U 6.000MHZ 30PPM 16PF
X1	156-A01L	RESONATOR,CRYSTAL, HC49U 6.000MHZ 30PPM 16PF
X301	156-A02X	RESONATOR,CRYSTAL, HC49U 27.000MHZ 25PPM 20PF
X302	6202VDB007B	RESONATOR,CRYSTAL, HC49U 20.250MHZ 30PPM 16PF
X501	6202VDT002B	RESONATOR,CRYSTAL, SX-1SMD 14.318MHZ 30PPM 16PF TP
X601	6202VDT002B	RESONATOR,CRYSTAL, SX-1SMD 14.318MHZ 30PPM 16PF TP
X90	166-E02F	RESONATOR,CERAMIC, CSB500F9 MURATA 500KHZ .
X901	156-A02M	RESONATOR,CRYSTAL, HC49U KJE RADIAL 18.432MHZ 30PPM 10PF
ZD101	0DZ330009BA	DIODE,ZENERS, ZENER HZT33 TAPING

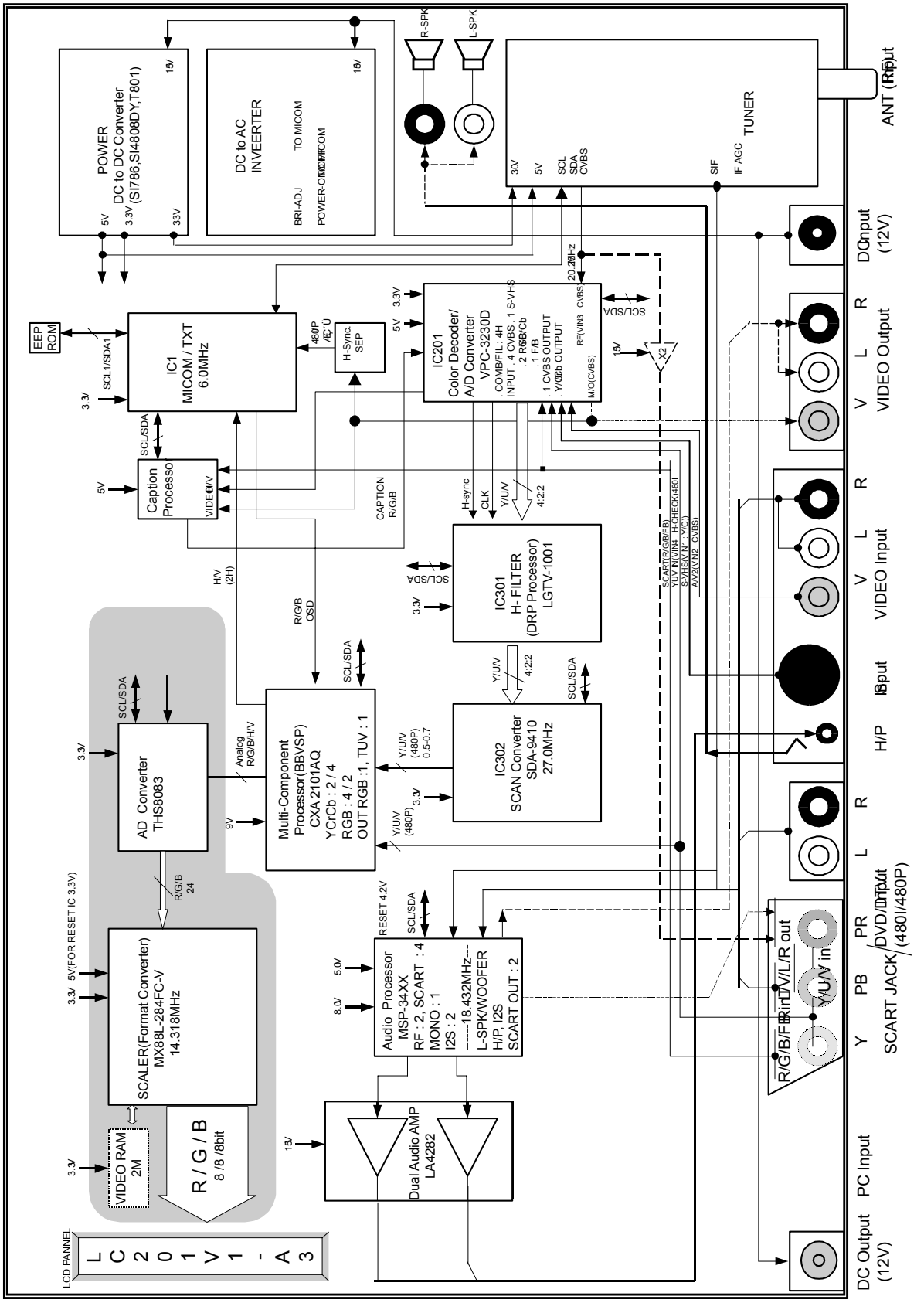
DIAGRAMS

EXPLODED VIEW



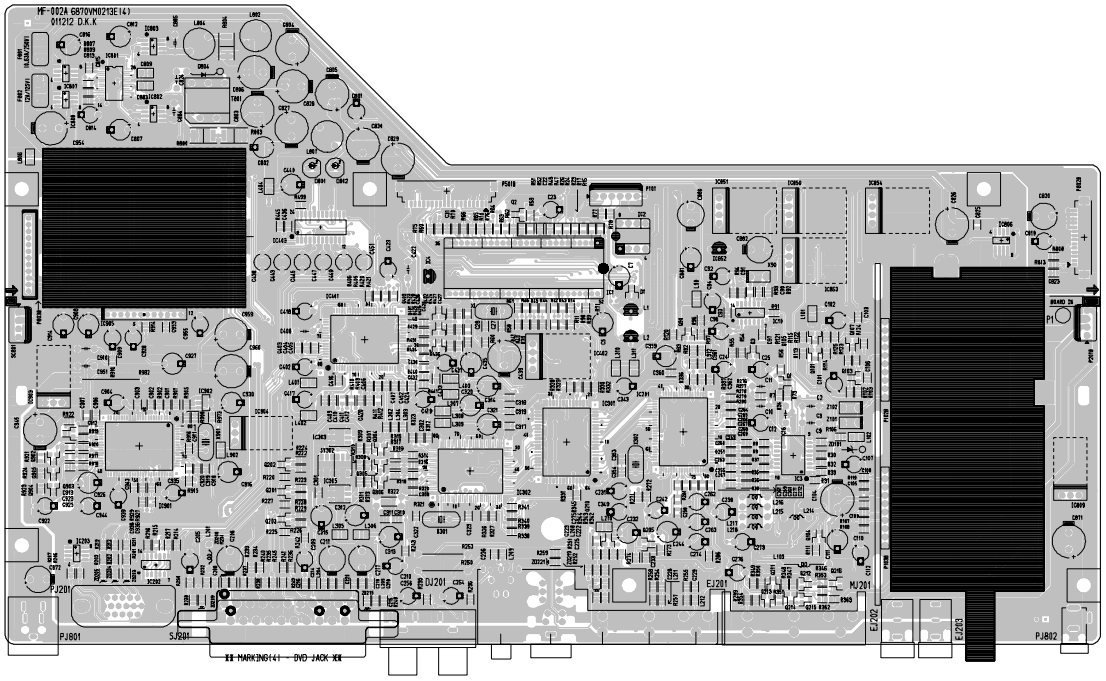
L20V26 Model Parts		
No.	PART NO.	DESCRIPTION
1	3091V00A20G	CABINET ASSY, ZENITH
2	120-D44E	SPEAKER G705/080701A MOTORJOY 4OHM
3	6871VSMA75F	POWER PCB ASSY
4	5020V00553E	BUTTON SET (#39)
5	5020V00552H	BUTTON SET
6	6871VSMA74A	CTL PCB ASSY
7	6304VT2011A	LCD,LC201V1-A1 20.1
8	6633VA0003D	INVERTER ASSY, 15VOLT KUBNKM022A
9	6871VSM814B	MX PCB ASSY
10	6871VMM644L	MAIN PCB ASSY
11	6871VSM812B	TUNER PCB ASSY
12	3809V00A10J	BACK COVER ASSY
13	3550V00202A	A/V COVER ABS
14	4950V00081B	METAL HINGE FIXER SUS304
15	4811V00019E	BRACKET ASSY

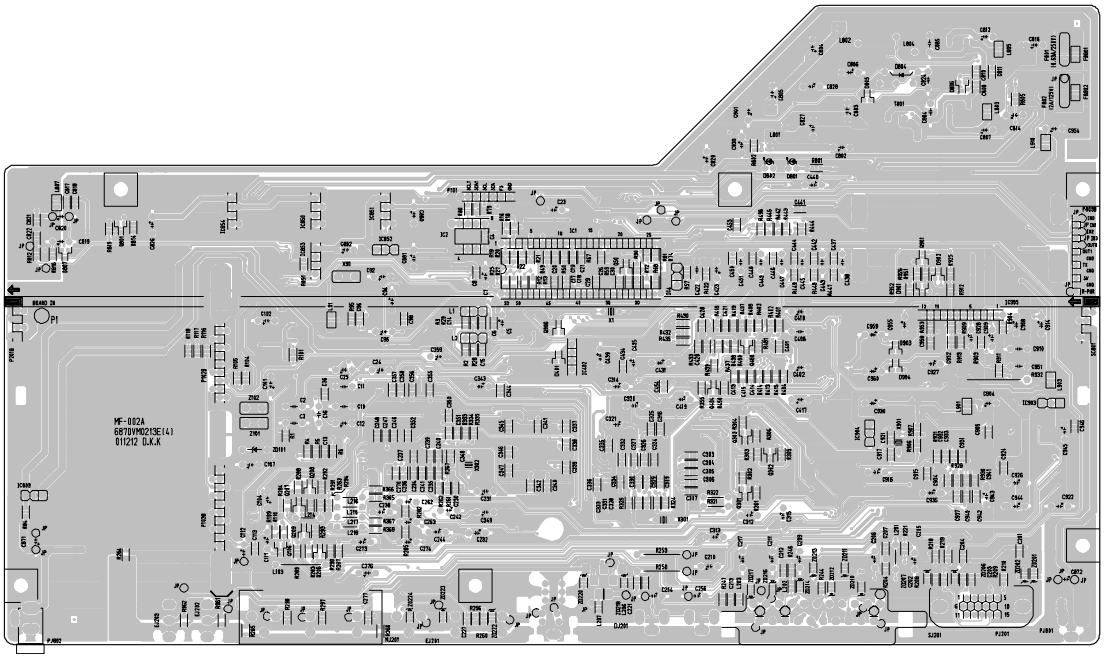
BLOCK DIAGRAM



PCB LAYOUTS

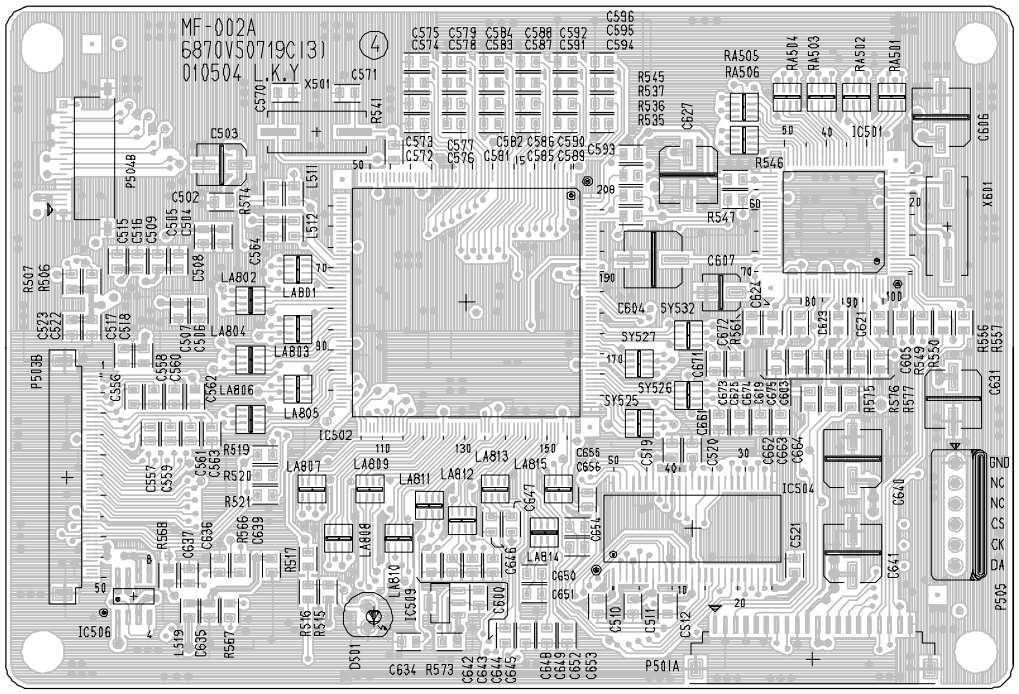
MAIN PCB LAYOUT

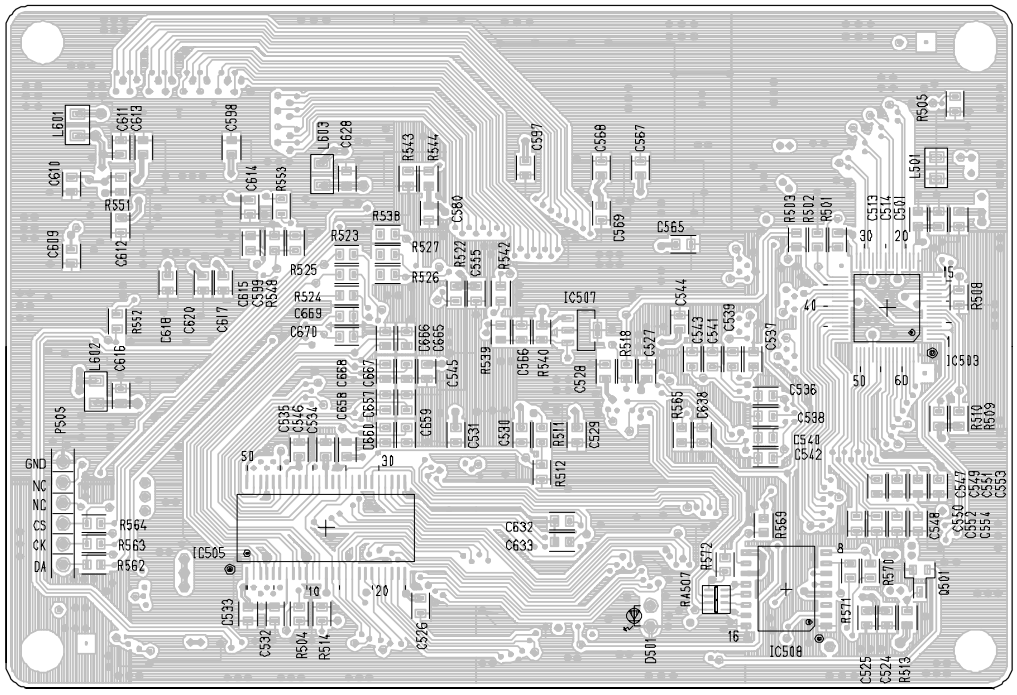




PCB LAYOUTS

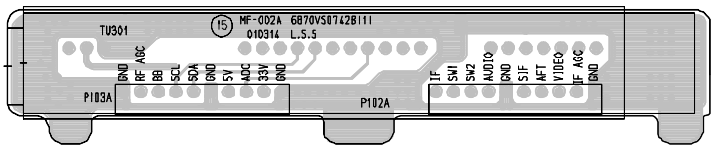
MX PCB LAYOUT



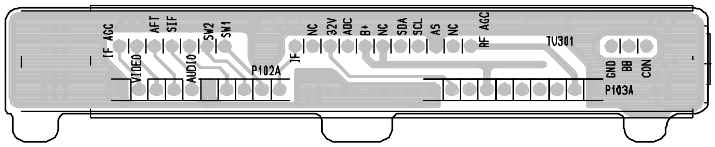


TUNER PCB LAYOUT

TUNER(TOP)

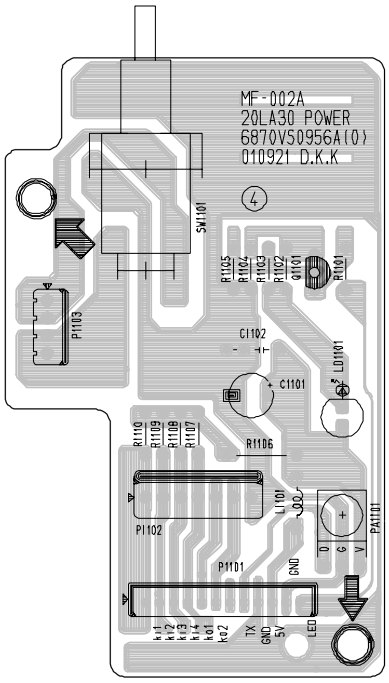

TU301
MF-002A 6870VS0742B(1)
010314 L.S.5
GND RF AGC BB SCL SDA GND 5V ADC 33V GND
P103A
P102A
TF SW1 SW2 AUDIO GND SIF AFT VIDEO IF AGC GND

TUNER(BOTTOM)

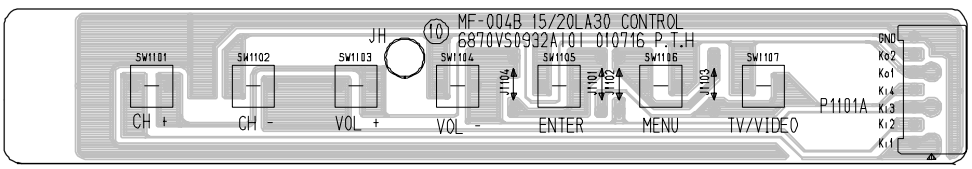


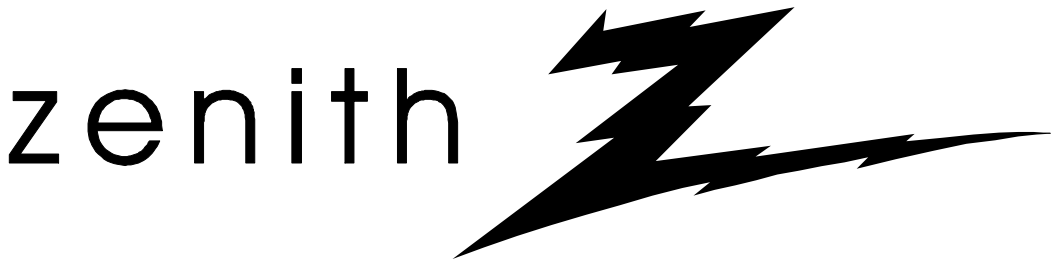
CONTROL PANEL PCB LAYOUT

POWER



CONTROL


MF-004B 15/20LA30 CONTROL
6870VS0932A(0) 010716 P.T.H
JH
SW1101 SW1102 SW1103 SW1104 SW1105 SW1106 SW1107
CH + CH - VOL + VOL - ENTER MENU TV/VIDEO
P1101A
GND Ko2 Ko1 Ki4 Ki3 Ki2 Ki1


zenith

Main L20V26 Circuit